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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/887,364 | 06/22/2001 | David P. Silberberg | 1501-SPL | 7026 |

7590 08/19/2004

THE JOHNS HOPKINS UNIVERSITY
Applied Physics Laboratory
11100 Johns Hopkins Road
Laurel, MD 20723-6099

EXAMINER

COURTENAY III, ST JOHN

ART UNIT PAPER NUMBER

2126

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------------------|------------------------------------------|--|
| Office Action Summary | Application No. 09/887,364 | Applicant(s) SILBERBERG ET AL. | |
| | Examiner St. John Courtenay III | Art Unit 2126 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


ST. JOHN COURTENAY III
PRIMARY EXAMINER

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Detailed Action

1. Claim Rejections - 35 U.S.C. § 112, second paragraph
2. Claims 1- 14, 22, and 24 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per independent claims 1 & 24:

"the generic domain" lacks positive antecedent basis [i.e., "a knowledge base comprising a data model of the generic domain"].

Applicant has introduced a "generic domain module" in claim 1 (but not claim 24), but has not introduced "a generic domain" to provide positive antecedent basis for "the generic domain" being referenced.

The Examiner suggests that the claim be modified to read:

"a knowledge base comprising a generic domain data model, ..."

As per dependent claim 22:

"the data source domain module" lacks positive antecedent basis.

"the aggregation domain module" lacks positive antecedent basis.

"the user domain module" lacks positive antecedent basis.

Appropriate correction is required.

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 15 – 21, 23, 25 & 26 are rejected under 35 U.S.C. § 102(e) as being anticipated by **LaStrange et al.** (U.S. Patent 6,148,298).

As per independent claim 15:

LaStrange teaches a method for maintaining application and data source autonomy, the method comprising:

- providing an intermediate layer that decouples users and applications from underlying data sources [e.g., see "user's data request is transformed by page grabber 301" and associated discussion beginning col. 7, line 7; see also "Each data source has a corresponding adapter 303 that is specifically designed for that source" and associated discussion beginning col. 5, line 17; see also "Accumulator 206" and associated discussion beginning col. 5, line 46; see also "Fuzzy matching unit 301 then generates an output comprising one or more 'logical records' " and associated discussion col. 6, line 22].

As per independent claims 16 and 25:

LaStrange teaches a method for accessing information from distributed heterogeneous sources, the method comprising:

- receiving queries from users and applications [e.g., see "user's data request" and associated discussion beginning col. 7, line 7; see also "many applications involving data access" discussion beginning col. 2, line 23; see also discussion of "cross-carrier provider search module 200 that receives a generic search request form from, for example, the user interface of computer 111", col. 4, beginning line 1];
- translating the queries into a form from which it can be determined the data sources to address the queries [e.g., see "user's data request is transformed by page grabber 301" and associated discussion beginning col. 7, line 7];
- determining which data sources the queries should be transmitted to [e.g., see "request messages address to both target data sources 501A and 501B as well as non-target database 501C" and associated discussion col. 7, line 10];
- formulating data source queries that navigate underlying representations of the data sources in native languages of the data sources [e.g., see "Each data source has a corresponding adapter 303 that is specifically designed for that source" and associated discussion beginning col. 5, line 17] ;
- transmitting the queries to the data sources [e.g., see "provider grabber" discussion beginning col. 4, line 10; see also page grabber 301 discussion col. 4, beginning line 54];

- receiving responses to the queries [e.g., see "Page grabber 301 also serves to receive response messages ..." and associated discussion col. 4, beginning line 65] ;
- aggregating the responses from individual data sources into a single response [e.g., see "Accumulator 206" and associated discussion beginning col. 5, line 46] ;
- translating the responses into a form recognizable to the users and applications [e.g., see "data translations" and associated discussion col. 5, line 27]; and
- transmitting the responses to the users and applications [e.g., see "Fuzzy matching unit 301 then generates an output comprising one or more 'logical records' " and associated discussion col. 6, line 22] .

As per dependent claim 17:

LaStrange teaches the users and applications formulate the queries in a simplified query language [see col. 1, discussion beginning line 53: "A plurality of user criteria are received and site specific information describing idiosyncrasies of each data source are stored. A plurality of query messages are generated based upon the received criteria and the stored idiosyncrasy information"].

As per dependent claim 18:

LaStrange teaches translating the queries comprises analyzing the queries by applying concept mappings that describe a mapping of concepts from a user domain to an aggregation domain and from the aggregation domain to a data source domain [see col. 2, line 15: "The present invention is directed to a system and method for obtaining product information and is particularly illustrated in terms of a system for aggregating insurance product information from a variety of distributed, diverse data sources." ;see also: "Each data source has a corresponding adapter

303 that is specifically designed for that source" and associated discussion beginning col. 5, line 17].

As per dependent claim 19:

LaStrange teaches the queries from the users and the applications are received and translated by a user domain [e.g., see "data translations" and associated discussion col. 5, line 27].

As per dependent claim 20:

LaStrange teaches:

- receiving the translated queries with a user domain [e.g., see "data translations" and associated discussion col. 5, line 27];
- further translating the queries with an aggregation domain into a form from which it can be determined which data sources to transmit the queries to see also: "Each data source has a corresponding adapter 303 that is specifically designed for that source" and associated discussion beginning col. 5, line 17]; and
- transmitting the further translated queries to a data source domain [e.g., see "provider grabber" discussion beginning col. 4, line 10; see also page grabber 301 discussion col. 4, beginning line 54].

As per dependent claim 21:

LaStrange teaches:

- receiving the further translated queries with the data source domain [e.g., see "data translations" and associated discussion col. 5, line 27];

- formulating data source queries that navigate underlying representations of the data sources in native languages of the data sources [e.g., see "Each data source has a corresponding adapter 303 that is specifically designed for that source" and associated discussion beginning col. 5, line 17]; and
- transmitting at least portions of the queries to the data sources [see carrier provider grabber discussion beginning col. 4, line 10].

As per dependent claim 23:

LaStrange teaches determining which data sources to transmit the queries to comprises matching contexts derived from the queries with contexts in the data models [see discussion of "cross-carrier provider search module 200 that receives a generic search request form from, for example, the user interface of computer 111", col. 4, beginning line 1; see also discussion of carrier provider grabbers, col. 4, beginning line 14].

As per independent claim 26:

This claim is rejected for the same reasons detailed above in the rejection of independent claims 16 & 25, and also for the following additional reasons:

LaStrange teaches a system for performing an information access process, comprising:

- a processor operable to execute computer program instructions [col. 2, line 38]; and
- a memory operable to store computer program instructions executable by the processor [col. 3, line 55].

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5. Indication of Allowable Subject Matter:

Upon correction of the 35 U.S.C. §112 2nd paragraph rejection above, claims 1-14 & 24 appear to be allowable over the prior art of record, subject to the results of a final search. With respect to independent claims 1 & 24, the claimed "user domain module", "aggregation domain module" [claim 24], "generic domain module" [claim 1], "data source domain module" and "knowledge base" have been considered as definitions by the Examiner. The words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d1320, 1322 (Fed. Cir. 1989). Definitions for the aforementioned terms are found on page 5 of the instant specification.

When the proper claim interpretation is applied to claims 1 & 24, the prior art of record does not teach nor fairly suggest the claimed named modules and "knowledge base" operatively coupled as claimed.

6. Prior Art not relied upon:

Please refer to the references listed on the attached PTO-892 which are not relied upon in the claim rejections detailed above.

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How to Contact the Examiner:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to St. John Courtenay III, J.D., M.B.A., whose telephone number is 703-308-5217. A voice mail service is also available at this number. The examiner can normally be reached on M - F 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-AI who can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Effective Oct. 15, 2003, ALL patent application correspondence transmitted by FAX must be directed to the new PTO central FAX number:

**NEW PTO CENTRAL FAX NUMBER:
703-872-9306**

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- Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: (703) 305-3900.**

Please direct inquiries regarding fees, paper matching, and other issues not involving the Examiner to:

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The Manual of Patent Examining Procedure (MPEP) is available online at:
<http://www.uspto.gov/web/offices/pac/mpep/index.html>



ST. JOHN COURTENAY III
PRIMARY EXAMINER